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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

DOUG LITTLE – INTERIM CHAIRMAN
BOB STUMP
BOB BURNS
TOM FORESE

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AZ CORP COMMISSION
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IN THE MATTER OF THE APPLICATION OF
COMMUNITY WATER COMPANY OF
GREEN VALLEY FOR DETERMINATION OF
THE CURRENT FAIR VALUE OF ITS
UTILITY PLANT AND PROPERTY AND FOR
INCREASES IN ITS RATES AND CHARGES
FOR UTILITY SERVICE.

DOCKET NO. W-02304A-15-0263

**NOTICE OF FILING
DIRECT TESTIMONY**

The Utilities Division ("Staff") of the Arizona Corporation Commission ("Commission") hereby files the Direct Testimony of Staff witnesses Phan Tsan, and Jian Liu, regarding the above-referenced matter.

RESPECTFULLY SUBMITTED this 2nd day of February, 2016.

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Arizona Corporation Commission

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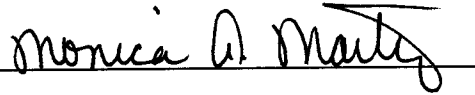
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BEFORE THE ARIZONA CORPORATION COMMISSION

DOUG LITTLE
Interim Chairman
BOB STUMP
Commissioner
BOB BURNS
Commissioner
TOM FORESE
Commissioner

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. W-02304A-15-0263
COMMUNITY WATER COMPANY OF GREEN)
VALLEY, AN ARIZONA CORPORATION, FOR A)
DETERMINATION OF THE CURRENT FAIR)
VALUE OF ITS UTILITY PLANT AND)
PROPERTY AND FOR INCREASES IN ITS)
RATES AND CHARGES FOR UTILITY SERVICE)

DIRECT
TESTIMONY
OF
PHAN TSAN
PUBLIC UTILITIES ANALYST
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

FEBRUARY 2, 2016

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EXECUTIVE SUMMARY
COMMUNITY WATER COMPANY OF GREEN VALLEY
DOCKET NO. W-02304A-15-0263

Community Water Company of Green Valley ("Community Water" or "Cooperative") is a member-owned, non-profit water utility located in Southern Arizona, in unincorporated Pima County and the Town of Sahuarita. Community Water provided water service to approximately 12,939 customers during the test year ended December 31, 2014. The current rates for Community Water were approved in Decision No. 71478, dated February 3, 2010.

Community Water proposed increasing operating revenues by \$708,244 to produce operating revenues of \$4,231,930 resulting in operating income of \$698,269, or a 20.10 percent increase over test year revenues of \$3,523,686. The Cooperative proposes a 16.5 percent operating margin, which corresponds to a 9.09 percent rate of return. The Company also proposes a Fair Value Rate Base ("FVRB") of \$7,678,586 which does not differ from its Original Cost Rate Base.

Staff recommends increasing operating revenues by \$257,877 to produce operating revenues of \$3,899,354, resulting in operating income of \$643,289, or a 7.08 percent increase over adjusted test year revenues of \$3,641,478. Staff recommends a 16.50 percent operating margin which corresponds to a 9.80 percent rate of return. Staff recommends a FVRB of \$6,563,586.

1 **INTRODUCTION**

2 **Q. Please state your name, occupation, and business address.**

3 A. My name is Phan Tsan. I am a Public Utilities Analyst employed by the Arizona Corporation
4 Commission ("Commission") in the Utilities Division ("Staff"). My business address is 1200
5 West Washington Street, Phoenix, Arizona 85007.

6
7 **Q. Briefly describe your responsibilities as a Public Utilities Analyst.**

8 A. I am responsible for the examination and verification of financial and statistical information
9 included in utility rate applications. In addition, I prepare written reports, testimonies, and
10 schedules that include Staff recommendations to the Commission. I am also responsible for
11 testifying at formal hearings on these matters.

12
13 **Q. Please describe your educational background and professional experience.**

14 A. I received a Bachelor of Science Degree in Finance and Economics and a Master of Science
15 Degree in Accounting from Grand Canyon University. Since joining the Commission, I have
16 participated in numerous rate cases and other regulatory proceedings. I have testified on
17 matters involving regulatory accounting and auditing. Additionally, I have attended the rate
18 school sponsored by the National Association of Regulatory Utility Commissioners
19 ("NARUC") on ratemaking.

20
21 **Q. What is the scope of your testimony in this case?**

22 A. I am representing Staff's analysis and recommendations in the areas of rate base, operating
23 revenues and expense, and revenue requirement regarding Community Water's application
24 for a permanent rate increase.

25

1 **Q. Who else is providing Staff testimony and what issues will they address?**

2 A. Staff witness Jian Liu is presenting Staff's engineering analysis and recommendations.
3

4 **Q. What is the basis of your recommendations?**

5 A. I performed a regulatory audit of the Cooperative's application to determine whether
6 sufficient, relevant, and reliable evidence exists to support the Cooperative's requested rate
7 increase. The regulatory audit consisted of examining and testing the financial information,
8 accounting records, and other supporting documentation and verifying that the accounting
9 principles applied were in accordance with the Commission-adopted NARUC Uniform
10 System of Accounts.
11

12 **BACKGROUND**

13 **Q. Please provide a brief description of Community Water and the service it provides.**

14 A. Community Water is a member-owned, non-profit water utility located in Southern Arizona,
15 in unincorporated Pima County, and the Town of Sahuarita. Community Water provided
16 water service to approximately 12,939 customers during the test year ended December 31,
17 2014. The current rates for Community Water were approved in Decision No. 71478, dated
18 February 3, 2010.
19

20 On July 15, 2015, Community Water filed an application requesting a permanent rate
21 increase. On August 14, 2015, Staff filed a sufficiency letter informing the Cooperative that
22 the application met the sufficiency requirements as outlined in the Arizona Administrative
23 Code R-14-2-103. The Cooperative is classified as a Class B utility.
24

1 **Q. What are the primary reasons for Community Water's requested permanent rate**
2 **increase?**

3 A. According to the Cooperative, since its most recent rate increase was approved on February
4 3, 2010, the Cooperative has made significant investments in plant, and various expenses have
5 increased. Consequently, rate increases are necessary to ensure that the Cooperative has the
6 ability to cover its operating expenses, service debt, fund expected capital requirements, and
7 partially fund cash reserves for major maintenance items and plant replacements.

8
9 **CONSUMER SERVICE**

10 **Q. Please provide a brief history of customer complaints received by the Commission**
11 **regarding Community Water.**

12 A. Staff reviewed the Commission's records and found two complaints during the past three
13 years. Both complaints were related to billing issues. Both complaints have been resolved
14 and closed. There were also two opinions filed in 2015 opposing the currently proposed rate
15 increase. The Cooperative is in good standing with the Corporations Division of the
16 Commission. The Cooperative mailed a Customer Notice to its customers during the billing
17 cycles in September and October, 2015 as an insert with their monthly bills. An affidavit of
18 publication and mailing was docketed on October 20, 2015.

19
20 **COMPLIANCE**

21 **Q. Please provide a summary of the compliance status of Community Water.**

22 A. A check of the Compliance Database indicates that there are currently no delinquencies for
23 Community Water at this time. Therefore, the Cooperative is currently in compliance with
24 the Compliance Database.

SUMMARY OF PROPOSED AND RECOMMENDED REVENUES

Q. Please summarize Community Water's filing.

A. The Cooperative proposed increasing total annual operating revenue to \$4,231,930, which is a \$708,244, or a 20.10 percent increase over test year revenue of \$3,523,686. This will produce operating income of \$698,269, or a 16.5 percent operating margin and a 9.09 percent rate of return.

Q. Please summarize Staff's recommended revenue.

A. Staff recommends increasing total annual operating revenue to \$3,899,354 which is a \$257,877, or a 7.08 percent, increase over adjusted test year revenue of \$3,641,478. This will produce operating income of \$643,289, or a 16.50 percent operating margin and a 9.80 percent rate of return, as shown on Schedule PNT-1.

SUMMARY OF THE RATE BASE AND OPERATING INCOME

Q. Please summarize the rate base adjustments addressed in your testimony.

A. My testimony addresses the following issues:

Plant not used and useful – This adjustment decreases rate base by \$1,115,000.

Q. Please summarize the operating revenue and expense adjustments addressed in your testimony.

A. My testimony addresses the following issues:

Water usage normalization – This adjustment increases Metered Water Revenue by \$94,433, Purchased Power Expense by \$13,599 and Chemicals Expense by \$2,079.

Other Operating Revenues – This adjustment increases Other Operating Revenue by \$23,358.

1
2 Salaries and Wages – This adjustment decreases expenses by \$72,685.

3
4 Employee Pensions and Benefits – This adjustment increases expenses by \$160,577.

5
6 Repairs and Maintenance – This adjustment decreases expenses by \$29,146.

7
8 Outside Service – This adjustment decreases expenses by \$17,961.

9
10 Miscellaneous Expense – This adjustment decrease expenses by \$130,121.

11
12 Depreciation Expense – This adjustment decreases expenses by \$202,499.

13
14 Property Tax Expense – This adjustment increases expenses by \$5,239 to reflect Staff's
15 recalculation of property tax expense, based on Staff's recommended revenue requirement.

16
17 **RATE BASE**

18 *Fair Value Rate Base*

19 **Q. Did the Cooperative prepare schedules showing the elements of Reconstruction Cost**
20 **New Rate Base?**

21 **A.** No, the Cooperative did not. The Cooperative's filing treats the Original Cost Rate Base
22 ("OCRB") the same as the Fair Value Rate Base ("FVRB"); and Staff supports using the
23 Cooperative's OCRB as FVRB.

24

1 *Rate Base Summary*

2 **Q. Please summarize the Company's proposed rate base.**

3 A. The Cooperative is proposing a FVRB of \$7,678,586 as shown on Schedules PNT-1 and
4 PNT-2.

5
6 **Q. Does Staff recommend any changes to the Cooperative's proposed rate base?**

7 A. Yes. Staff recommends a FVRB of \$6,563,586, a reduction of \$1,115,000, as shown on
8 Schedules PNT-2 and PNT-3.

9
10 *Adjustment No.1- Plant not used and useful*

11 **Q. Did Staff identify any plant that was not used and useful?**

12 A. Yes. Staff Engineer Jian Liu inspected the entire system and identified \$1,115,000 in Post-
13 test-year Plant Addition-Distribution Reservoirs & Standpipes that were not used and useful.
14 Details are discussed in his testimony and report.

15
16 **Q. What adjustment did Staff make?**

17 A. Staff removed \$1,115,000 from Plant-in-service, as shown on Schedule PNT-3.
18

19 **Q. What is Staff's recommendation?**

20 A. Staff recommends decreasing rate base by \$1,115,000, from \$7,678,586 to \$6,563,586 as
21 shown on Schedules PNT-2 and PNT-3.
22

OPERATING INCOME

Operating Income Summary

Q. What are the results of Staff's analysis of test year revenues, expenses, and operating income?

A. Staff's analysis resulted in adjusted test year operating revenues of \$3,641,478, operating expenses of \$3,252,242 and an operating income of \$389,235, as shown on Schedules PNT-5 and PNT-6.

Operating Revenue Adjustment No.1 – Water Usage Normalization

Q. What did the Cooperative propose for Water Usage Normalization?

A. The Cooperative proposed a water usage normalization adjustment which would reduce Metered Water Revenue by \$94,433, Purchased Power Expense by \$13,599 and Chemicals Expense by \$2,079 based on a simple linear regression analysis.

Q. What is Staff's recommendation?

A. Staff believes that water usage by residential customers can be seasonal and can also be impacted by factors such as rainfall variances experienced from year to year. The Cooperative's customer usage linear regression analysis did not give consideration to any of these other factors that can and do impact customer water usage from year to year.

Therefore, Staff recommends reversing the usage adjustments recommended by the Cooperative which will increase metered water usage revenue back to the actual test year level and also increase purchased power expense and chemical expense back to the levels recorded during the test year as shown on Schedule PNT-7.

Operating Revenue Adjustment No. 2 – Other Operating Revenues

Q. What did the Cooperative propose for Other Operating Revenues?

A. The Cooperative proposed Other Operating Revenues of \$72,833.

Q. During the course of the audit, did Staff identify revenue that the Cooperative had incorrectly classified as non-utility revenue?

A. Yes.

Q. What was the source of the revenue?

A. Pima County Waste Water Management pays Community Water for providing customer water usage information.

Q. What is Staff's recommendation?

A. Staff recommends increasing other revenue by \$23,358, from \$72,833 to \$96,191 as shown on Schedules PNT-5, PNT-6 and PNT-8.

Operating Income Adjustment No. 3 – Salaries and Wages

Q. What is the Cooperative proposing for salaries and wages expense?

A. The Cooperative is proposing salaries and wages expense of \$999,690. This amount composed of \$842,176 actual test year salaries and wages and a \$157,514 adjustment.

Q. What adjustment did Staff make to salaries and wages expense?

A. Starting with \$1,087,895 total compensation, Staff removed salaries and wages that were capitalized and/or charged to non-utility expenses. Staff also removed the cost of using an outside accountant which was included in Outside Service expense as shown on Schedule PNT-9.

1 **Q. What is Staff's recommendation?**

2 A. Staff recommends decreasing salaries and wages expense by \$72,685, from \$999,690 to
3 \$927,005 as shown on Schedules PNT-5 and PNT- 6.
4

5 *Operating Income Adjustment No. 4 – Employee Pensions and Benefits*

6 **Q. What did the Cooperative propose for Employee Pensions and Benefits?**

7 A. The Cooperative has no account 602-Employee Pension and Benefits in its books. Total
8 \$124,576 Profit sharing and 401(K) Matching were classified as Miscellaneous expense.
9

10 **Q. What adjustment did Staff make?**

11 A. Staff reclassified \$124,576 Profit sharing and 401(K) Matching from account 675-
12 Miscellaneous Expense to account 604-Employee Pensions and Benefits. Staff also increased
13 this account by \$36,001 to match contributions or additional retirement expense related to
14 pay increases as shown on schedule PNT-10.
15

16 **Q. What is Staff's recommendation?**

17 A. Staff recommends the Cooperative adopt account 604- Employee Pensions and Benefits, as
18 guided in the Commission-adopted NARUC USOA for Class B Water Utilities. Staff also
19 recommends increasing this account by \$160,577, from \$0 to \$160,577, as shown on
20 schedules PNT-5 and PNT-6.
21

22 *Operating Income Adjustment No. 5 – Repair and Maintenance Expense*

23 **Q. What did the Cooperative propose for Repair and Maintenance Expense?**

24 A. The Cooperative proposed \$65,908 for Repair and Maintenance Expense.
25

26 **Q. What adjustment did Staff make?**

1 A. Staff recalculated the annual reserve accrual for reservoir maintenance.

2
3 **Q. What did the Cooperative propose for the annual reserve accrual for reservoir**
4 **maintenance?**

5 A. The Cooperative proposed \$55,886 for the annual reserve accrual for reservoir maintenance.

6
7 **Q. What does Staff recommend for the annual reserve accrual for reservoir maintenance?**

8 A. Staff recommends \$26,740 for the annual reserve accrual for reservoir maintenance.

9
10 **Q. How is Staff's calculation different than the Cooperative's?**

11 A. The Cooperative factored compounded an annual inflation rate of 3.00 percent in the
12 calculation of annual reserve. The Cooperative also included the cost of annual reserve for
13 PTY plant-Reservoir No. 5. Staff's calculation does not factor an inflation rate, as shown on
14 Schedule PNT-11, because the inflation rate is unknown, an annual reserve can always be
15 adjusted when the Cooperative comes in for a rate case. Staff does not include annual reserve
16 for Reservoir No. 5 since that plant is not used and useful.

17
18 **Q. What is Staff's recommendation for Repair and Maintenance?**

19 A. Staff recommends decreasing this account by \$29,146, from \$65,908 to \$36,762 as shown on
20 schedule PNT-5 and PNT-6.

21
22 *Operating Income Adjustment No. 6 – Outside Service*

23 **Q. What did the Cooperative propose for Outside Service?**

24 A. The Cooperative proposed \$295,318 for this expense.

25
26 **Q. What adjustment did Staff make?**

1 A. Staff removed \$10,911 in legal fees and the cost of a settlement agreement associated with an
2 issue with one of its employees since it is considered extraordinary or a non-recurring event.
3 Staff also removed the cost of hiring an outside Assistant to the President since the
4 Cooperative is hiring for this position as a part time position and the expense was included in
5 Salaries and Wages expense, as shown on Schedule PNT-12.

6
7 **Q. What is Staff's recommendation?**

8 A. Staff recommends decreasing the expense by \$17,961, from \$295,318 to \$277,357, as shown
9 on Schedule PNT-5 and PNT-6.

10
11 *Operating Income Adjustment No. 7 – Miscellaneous Expense*

12 **Q. What did the Cooperative propose for Miscellaneous Expense?**

13 B. The Cooperative proposed \$236,192 for this expense.

14
15 **Q. What adjustment did Staff make?**

16 A. Staff removed \$5,545 cost of food and entertainment. Staff also reclassified \$124,576 Profit
17 Sharing and 401(K) Matching from this account to Account 604, Employee Pensions and
18 Benefits, as shown on schedule PNT-13.

19
20 **Q. What is Staff's recommendation?**

21 A. Staff recommends decreasing the expense by \$130,121, from \$236,192 to 106,071, as shown
22 on schedules PNT-5 and PNT-6.

23
24 *Operating Expense Adjustment No. 8 – Depreciation Expense*

25 **Q. What is the Cooperative proposing for depreciation expense?**

26 A. The Cooperative is proposing \$1,026,384 for depreciation expense.

1 **Q. What adjustment did Staff make to depreciation expense?**

2 A. Staff decreased depreciation expense by \$202,499, as reflected on Schedule PNT-14. This
3 adjustment reflects Staff's recommended depreciation rates on a going-forward basis, applied
4 to Staff adjusted depreciable plant. The Cooperative uses the Broad Group Method of
5 depreciation. Under this method, plant is not considered fully depreciated until it is retired.
6 Consequently, the Cooperative continues to depreciate plant that is fully depreciated which
7 causes over depreciation of plant.

8
9 **Q. Which plant accounts did Staff find were over-depreciated?**

10 A. Staff found that Account 311- Electric Pumping Equipment, Account 340.01-Computer and
11 Software, Account 341-Transportation, Account 345.01-Power Operated Equipment-
12 Backhoe and Account 346-Communication Equipment are over-depreciated.

13
14 Electric Pumping Equipment

15 **Q. What estimated service life did the Cooperative use to depreciate Electric Pumping**
16 **Equipment additions?**

17 A. The Cooperative used a 12.50 percent depreciation rate which assumes an estimated service
18 life of 8 years (i.e., $1 \div 8 \text{ years} = 12.50\%$).

19
20 **Q. Did Staff identify any Electric Pumping Equipment that was fully depreciated at the**
21 **end of the test year or that would be fully depreciated within six months after the test**
22 **year?**

23 A. Staff identified a total \$1,163,886 plant balance less retirements that was fully depreciated,
24 inclusive of 2004 plant balance of \$381,324 (Decision 69205) and \$1,045,685 plant additions
25 placed in service in 2006.

26

Computer and Software

Q. What estimated service life did the Cooperative use to depreciate Computer and Software additions?

A. The Cooperative used a 20.00 percent depreciation rate which assumes an estimated service life of 5 years (i.e., $1 \div 5 \text{ years} = 20\%$).

Q. Did Staff identify any Computer and Software that were fully depreciated at the end of the test year or that would be fully depreciated within six months after the test year?

A. Staff identified a total \$105,743 plant balance less retirements that was fully depreciated, inclusive of a 2007 plant balance of \$265,818 with an accumulated depreciation balance of \$237,831 (Decision No. 71478), \$48,325 plant additions placed in service in 2009 and \$16,450 plant additions placed in service in 2010.

Transportation and Equipment

Q. What estimated service life did the Cooperative use to depreciate Transportation and Equipment additions?

A. The Cooperative used a 20.00 percent depreciation rate which assumes an estimated service life of 5 years (i.e., $1 \div 5 \text{ years} = 20\%$).

Q. Did Staff identify any Transportation and Equipment that were fully depreciated at the end of the test year or that would be fully depreciated within six months after the test year?

A. Staff identified a total \$300,372 plant balance less retirements that was fully depreciated, inclusive of a 2007 plant balance of \$464,094 with accumulated depreciation balance of \$398,371 (Decision No. 71478) and \$183,156 plant additions placed in service from 2008 to 2010.

Power Operated Equipment-Backhoe

Q. What estimated service life did the Cooperative use to depreciate Power Operated Equipment-Backhoe additions?

A. The Cooperative used a 5 percent depreciation rate which assumes an estimated service life of 20 years (i.e., $1 \div 20 \text{ years} = 5\%$).

Q. Did Staff identify any Power Operated Equipment-Backhoe that was fully depreciated at the end of the test year or that would be fully depreciated within six months after the test year?

A. Yes. Staff identified \$107,179 end of 2007 balance (Decision No. 71478) that was fully depreciated.

Communication Equipment

Q. What estimated service life did the Cooperative use to depreciate Communication Equipment additions?

A. The Cooperative used a 10.00 percent depreciation rate which assumes an estimated service life of 10 years (i.e., $1 \div 10 \text{ years} = 10\%$).

Q. Did Staff identify any Communication Equipment that was fully depreciated at the end of the test year or that would be fully depreciated within six months after the test year?

A. Yes. Staff identified a total \$50,298 plant balance less retirements that was fully depreciated, inclusive of a \$69,340 end of 2007 balance with an accumulated depreciation balance of 32,224 (Decision No.71478).

1 **Q. Is the Broad Group Depreciation Method utilized by the Cooperative generally**
2 **accepted accounting?**

3 A. Yes. However, while Staff recognized that the Broad Group Method is a generally accepted
4 approach to recording depreciation expense for groups of homogeneous assets that could
5 become administratively burdensome to depreciate as individual property units, it should not
6 be used by entities that do not conduct periodic reviews of depreciation rates as required by
7 the NARUC USoA. Accounting Instruction No. 27 (c) of the NARUC USoA for Class B
8 Utilities states:

9
10 When the straight-line method is used, the rates **shall be reviewed**
11 **periodically and adjusted as required**, so that the depreciation
12 **accrual will bear a reasonable relationship to the service life**, the
13 **estimated net salvage, and the cost of the plant in service.**
14

15 **Q. Did the Cooperative perform a depreciation study?**

16 A. No, the Cooperative did not perform a depreciation study.
17

18 **Q. What problems can occur when entities do not periodically review and obtain**
19 **Commission authorization to update depreciation rates when necessary?**

20 A. Excess depreciation expense can continue to be calculated on the fully depreciated plant. In
21 this instance, Community Water's ratepayers are being asked to reimburse the Cooperative
22 for MORE THAN the original investments made in those assets. This is inconsistent with
23 the intent of the NARUC and the Arizona Administrative Code's purpose of allowed
24 recovery of depreciation which is to recover plant investments in a systematic and rational
25 manner that results in plant becoming fully depreciated at approximately the same time that
26 the underlying asset ceases being economically useful in providing service.
27
28

1 **Q. Do these plant items remain in service?**

2 A. Yes. Therefore, under the Group Method of depreciation these plant items would continue
3 to be depreciated until they are retired even though ratepayers have already paid or
4 reimbursed through depreciation the full original cost of the underlying assets. Staff also
5 notes that observations of over-depreciated plant also suggest that the depreciation rates that
6 have been used were too high since the actual economic life of the assets ends up being
7 longer than the life assumed when depreciation rates were set. Undertaking periodic
8 depreciation studies would help alleviate such over-depreciation risks.

9
10 **Q. Is Staff's depreciation expense adjustment prospective in nature and known and**
11 **measurable?**

12 A. Yes.

13
14 **Q. What is Staff's recommendation?**

15 A. Staff recommends decreasing depreciation expense by \$202,499 from \$1,026,384 to \$823,885,
16 as shown on Schedule PNT-5 and PNT-6.

17
18 *Operating Expense Adjustment No. 9-- Property Tax Expense*

19 **Q. What did the Cooperative propose for Property Tax Expense?**

20 A. The Cooperative proposed Property Tax Expense of \$156,279.

21
22 **Q. What is Staff's recommendation?**

23 A. Staff recommends increasing property taxes by \$5,239, from \$156,279 to \$161,518. Staff's
24 calculation is based upon Staff's adjusted test year and recommended revenues, as shown on
25 Schedule PNT-15.

26

REVENUE REQUIREMENT

Q. What does the Cooperative propose for an increase in operating revenue?

A. The Cooperative proposes increasing operating revenues by \$708,244, from \$3,523,687, to \$4,231,930, as reflected on Schedule PNT-1.

Q. What does Staff recommend for an increase in operating revenues?

A. Staff recommends a \$257,877 increase in operating revenues, from \$3,641,478, to \$3,899,354, as reflected on Schedule PNT-1.

Q. How does the above revenue requirement translate to the bottom line, or available operating income, for the Cooperative?

A. The Cooperative's requested revenue requirement of \$4,231,930 results in an operating income level of \$698,269 which is also a 16.5 percent operating margin. Staff's recommended revenue requirement of \$3,899,354 results in an operating income level of \$643,289 which is also a 16.5 percent operating margin.

Q. Were the Cooperative's current rates developed using a 16.5 percent operating margin?

A. No. The Cooperative's current rates were developed using a 15.0 percent operating margin, and Staff is accepting the Cooperative's proposed movement to a 16.5 percent operating margin only for this docket and only because the resulting change on revenue requirement is small. However, Staff wants to place the Cooperative on notice that further efforts to base rates on an even higher operating margin will be very carefully evaluated and possibly challenged. Certainly there is reason to believe that utilizing operating margins above 16.5 percent for Community Water could result in rates that are not fair and reasonable.

1 **Q. Why does Staff believe that utilization of an operating margin above 16.5 percent for**
2 **Community Water could result in rates that might not be fair and reasonable for this**
3 **Cooperative's customers?**

4 A. While Staff will certainly give consideration to all arguments raised by the Cooperative in
5 further rate case filings before reaching such a specific conclusion, staff notes that the
6 Cooperative has suggested that it might move to even a higher operating margin level as a
7 part of future rate case filings as a means of positioning the Cooperative to be able to fund
8 all, or substantially all on-going capital expenditures with the funds provided by current
9 ratepayers. Stated another way, Community Water wants its on-going, annually generated
10 revenues, to be set high enough to position the Cooperative to be able to "pay cash" for its
11 annual capital expenditures. Staff believes the Company's request is inconsistent with
12 matching principle because it would require current customers to fully pay for long-term
13 investments that will benefit and provide service to many generations of customers. Also
14 Staff believes that specifically building funding for capital projects into rates and then also
15 requirement ratepayers to pay a second time for these investments through depreciation
16 expense recoveries could constitute double recoveries from customers. Staff believes it is
17 better to assure that there is a proper matching of infrastructure cost funding with those who
18 actually utilize such assets over the economic life of those assets.

19
20 Again, Staff raises this concern at the present time to not to suggest that it has pre-judged any
21 specific future request that may be presented by the Community Water, but Staff wants the
22 Cooperative to understand these concerns.
23

1 **Q. Is it unusual for the Commission to approve rates for a cooperative using operating**
2 **margins rather than using a rate of return on rate base approach?**

3 A. No, it is not. Because cooperatives are member owned, the more traditional rate of
4 return/return on equity approach to setting rates is not utilized.

5
6 **Q. Did Staff review the cash flow produced by its recommended revenue requirement?**

7 A. Yes, Staff did review the cash flow. The attached Schedule PNT-16 indicates that Staff's
8 recommended revenue requirement produces an after debt service cash flow of \$1,194,418.

9
10 **Q. Does this conclude your direct testimony?**

11 A. Yes, it does.

12

REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	[A]		[B]	
		COOPERATIVE ORIGINAL COST		STAFF ORIGINAL COST	
1	Adjusted Rate Base	\$	7,678,586	\$	6,563,586
2	Adjusted Operating Income (Loss)	\$	526	\$	389,235
3	Current Rate of Return (L2 / L1)		0.01%		5.93%
4	Required Rate of Return		9.09%		9.80%
5	Required Operating Income (L4 * L1)	\$	698,269	\$	643,289
6	Operating Income Deficiency (L5 - L2)	\$	697,743	\$	254,054
7	Gross Revenue Conversion Factor		1.0150		1.0150
8	Required Revenue Increase (L7 * L6)	\$	708,244	\$	257,877
9	Adjusted Test Year Revenue	\$	3,523,687	\$	3,641,478
10	Proposed Annual Revenue (L8 + L9)	\$	4,231,930	\$	3,899,354
11	Required Increase in Revenue (%)		20.10%		7.08%
12	Current Operating Margin		0.01%		10.69%
13	Operating Margin (L5/L10)		16.50%		16.50%

References:

Column (A): Cooperative Schedule A-1

Column (B): Staff Schedules PNT-2 and PNT-4

GROSS REVENUE CONVERSION FACTOR

<u>Line No.</u>	<u>Description</u>	
1	Combined Federal An State Effective Income Tax Rate	0.0000%
2	Effective Property Tax Factor (Schedule PNT-14, L24)	1.4825%
3	Total Tax Percentage (L1+L2)	1.4825%
4	Operating income percentage (1-L2)	98.5175%
5	Gross Revenue Conversion Factor (1:L4)	1.015048

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Schedule PNT-2

RATE BASE - ORIGINAL COST/FAIR VALUE

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	[C] STAFF AS ADJUSTED
1	Plant in Service	\$ 42,452,128	\$ (1,115,000)	\$ 41,337,128
2	Less: Accumulated Depreciation	16,014,775	-	16,014,775
3	Net Plant in Service	<u>\$ 26,437,353</u>	<u>\$ (1,115,000)</u>	<u>\$ 25,322,353</u>
<u>LESS:</u>				
4	Net Contribution in Aid-of Construction (CIAC)	\$ 11,375,198	\$ -	\$ 11,375,198
5	Advances in Aid of Construction (AIAC)	7,383,569	-	7,383,569
6	Customer Deposits	-	-	-
7	Deferred Income Tax Credits	-	-	-
8	Total Deductions	<u>\$ 18,758,767</u>	<u>\$ -</u>	<u>\$ 18,758,767</u>
<u>ADD:</u>				
9	Unamortized Finance Charges	\$ -	\$ -	\$ -
10	Deferred Tax Assets	-	-	-
11	Allowance for Working Capital	-	-	-
12	Intentional Left Blank	-	-	-
13	Total Additions	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
14	Original Cost Rate Base	<u>\$ 7,678,586</u>	<u>\$ (1,115,000)</u>	<u>\$ 6,563,586</u>

References:

Column (A), Cooperative Schedule B-1
Column (B): Schedule PNT-3
Column (C): Column (A) + Column (B)

SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY AS FILED	STAFF ADJUSTMENT	STAFF ADJUSTED
<u>PLANT IN SERVICE:</u>					
1	301	Organization Costs	\$ 47,863	\$ -	\$ 47,863
2	302	Franchise Costs	244	-	244
3	303	Land & Land Rights	170,589	-	170,589
4	304	Structures & Improvements-Pumping	30,695	-	30,695
5	304.1	Structures & Improvements-Water Treatment	141,261	-	141,261
6	307	Wells & Springs	2,013,049	-	2,013,049
7	311	Electric Pumping Equipment	3,289,327	-	3,289,327
8	311.1	Pumping Equipment-Gas	118,494	-	118,494
9	320	Water Treatment Equipment	4,440,527	-	4,440,527
10	320.1	Water Treatment Plants	-	-	-
11	320.2	Solutions & Feeders	-	-	-
12	320.3	Arsenic Remediation Plant	-	-	-
13	330	Distribution Reservoirs & Standpipes	2,061,545	(1,115,000) 1	946,545
14	330.1	Storage Tank	-	-	-
15	330.2	Pressure Tanks	-	-	-
16	331	Transmission & Distribution Mains	19,123,697	-	19,123,697
17	333	Services	4,696,522	-	4,696,522
18	333	Fire Taps	332,174	-	332,174
19	334	Meters & Meter Installations	1,600,133	-	1,600,133
20	335	Hydrants	2,031,665	-	2,031,665
21	336	Backflow Prevention Devices	-	-	-
22	339	Other Plant & Misc. Equip.	583,181	-	583,181
23	340	Office Furniture & Fixtures	151,618	-	151,618
24	340.1	Computer & Software	608,761	-	608,761
25	341	Transportation Equipment	469,777	-	469,777
26	342	Store Equipment	2,441	-	2,441
27	343	Tools & Work Equipment	103,018	-	103,018
28	344	Laboratory Equipment	12,000	-	12,000
29	345	Power Operated Equipment	136,512	-	136,512
30	345.1	Power Operated Equipment-Backhoe	149,439	-	149,439
31	346	Communications Equipment	124,656	-	124,656
32	347	Miscellaneous Equipment	-	-	-
33	348	Other Tangible Plant	12,938	-	12,938
		Rounding	2	-	2
34		Gross Utility Plant in Service	\$ 42,452,128	\$ (1,115,000)	\$ 41,337,128
35		Less: Accumulated Depreciation	16,014,775	-	16,014,775
36		Net Utility Plant in Service	\$ 26,437,353	\$ (1,115,000)	\$ 25,322,353
<u>DEDUCTIONS</u>					
37		Contributions in Aid of Construction (CIAC)	\$ 16,784,118	\$ -	\$ 16,784,118
38		Less: Accumulated Amortization	5,408,920	-	5,408,920
39		Net CIAC	\$ 11,375,198	\$ -	\$ 11,375,198
40		Advances in Aid of Construction (AIAC)	7,383,569	-	7,383,569
41		Customer Meter Deposits	-	-	-
42		Deferred Income Tax Credits	-	-	-
43		Total Deductions	\$ 18,758,767	\$ -	\$ 18,758,767
<u>ADDITIONS:</u>					
44		Unamortized Finance Charges	\$ -	\$ -	\$ -
45		Deferred Tax Assets	-	-	-
46		Allowance for Working Capital	-	-	-
47		Intentional Left Blank	-	-	-
48		Total Additions	\$ -	\$ -	\$ -
49		ORIGINAL COST RATE BASE	\$ 7,678,586	\$ (1,115,000)	\$ 6,563,586

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Schedule PNT-4

RATE BASE ADJUSTMENT NO. 1 - PLANT NOT USED AND USEFUL

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJUSTMENT	[C] STAFF ADJUSTED
1	Distribution Reservoirs & Standpipes	\$ 2,061,545	\$ (1,115,000)	\$ 946,545

REFERENCES:

Column [A]: Cooperative Schedule B-2

Column [B]: Staff Testimony

Column [C]: Column [A] + Column [B]

OPERATING INCOME STATEMENT - ADJUSTED TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COMPANY ADJUSTED TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF RECOMMENDED CHANGES	[E] STAFF RECOMMENDED
1	<u>REVENUES:</u>					
2	Metered Water Sales	\$ 3,450,854	\$ 94,433	\$ 3,545,287	\$ 257,877	\$ 3,803,164
3	Water Sales - Unmetered	-	-	-	-	-
4	Other Operating Revenue	72,833	23,358	96,191	-	96,191
5	Total Operating Revenues	<u>\$ 3,523,687</u>	<u>\$ 117,791</u>	<u>\$ 3,641,478</u>	<u>\$ 257,877</u>	<u>3,899,354</u>
6	<u>OPERATING EXPENSES:</u>					
7	Salaries & Wages	\$ 999,690	\$ (72,685)	\$ 927,005	\$ -	\$ 927,005
8	Employee Pensions and Benefits	-	160,577	160,577	-	160,577
9	Purchased Water	-	-	-	-	-
10	Purchased Power	220,756	13,599	234,355	-	234,355
11	Chemicals	33,730	2,079	35,809	-	35,809
12	Repairs & Maintenance	65,908	(29,146)	36,762	-	36,762
13	Office Supplies & Expense	16,621	-	16,621	-	16,621
14	Outside services	295,318	(17,961)	277,357	-	277,357
15	Water Testing	15,124	-	15,124	-	15,124
16	Rents	-	-	-	-	-
17	Transportation Expense	54,195	-	54,195	-	54,195
18	Insurance - General Liability	54,967	-	54,967	-	54,967
19	Insurance - Health & Life	212,765	-	212,765	-	212,765
20	Regulatory Commission Expense	30,000	-	30,000	-	30,000
21	Miscellaneous Expense	236,192	(130,121)	106,071	-	106,071
22	Depreciation Expense	1,026,384	(202,499)	823,885	-	823,885
23	Taxes Other than Income	105,232	-	105,232	-	105,232
24	Property Taxes	156,279	5,239	161,518	3,823	165,340
25	Income Tax	-	-	-	-	-
26	Total Operating Expenses	<u>\$ 3,523,161</u>	<u>\$ (270,919)</u>	<u>\$ 3,252,242</u>	<u>\$ 3,823</u>	<u>\$ 3,256,065</u>
27	Operating Income (Loss)	<u>\$ 526</u>	<u>\$ 388,709</u>	<u>\$ 389,235</u>	<u>\$ 254,054</u>	<u>\$ 643,289</u>

References:

Column (A): Cooperative Schedule C-1

Column (B): Schedule PNT-6

Column (C): Column (A) + Column (B)

Column (E): Column (C) + Column (D)

SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Usage Normalization ADJ #1	[C] Other Revenue ADJ #2	[D] Sal. & Wages ADJ #3	[E] Em. Pen. & Ben. ADJ #4	[F] Re. & Main. ADJ #5	[G] Outside Service ADJ #6
1	REVENUES:							
2	461 Metered Water Sales	\$ 3,450,854	\$ 94,433	\$ -	\$ -	\$ -	\$ -	\$ -
3	460 Water Sales - Unmetered	-	-	-	-	-	-	-
4	474 Other Operating Revenue	72,833	-	23,358	-	-	-	-
5	Total Operating Revenues	\$ 3,523,687	\$ 94,433	\$ 23,358	\$ -	\$ -	\$ -	\$ -
6	OPERATING EXPENSES:							
7	601 Salaries & Wages	\$ 999,690	\$ -	\$ -	\$ (72,685)	\$ 160,577	\$ -	\$ -
8	604 Employee Pensions and Benefits	-	-	-	-	-	-	-
9	610 Purchased Water	-	-	-	-	-	-	-
10	615 Purchased Power	220,756	13,599	-	-	-	-	-
11	618 Chemicals	33,730	2,079	-	-	-	-	-
12	620 Repairs & Maintenance	65,908	-	-	-	-	(29,146)	-
13	621 Office Supplies & Expense	16,621	-	-	-	-	-	-
14	630 Outside services	295,318	-	-	-	-	-	(17,961)
15	635 Water Testing	15,124	-	-	-	-	-	-
16	641 Rents	-	-	-	-	-	-	-
17	650 Transportation Expense	54,195	-	-	-	-	-	-
18	657 Insurance - General Liability	54,967	-	-	-	-	-	-
19	659 Insurance - Health & Life	212,765	-	-	-	-	-	-
20	666 Regulatory Commission Expense	30,000	-	-	-	-	-	-
21	675 Miscellaneous Expense	236,192	-	-	-	-	-	-
22	403 Depreciation Expense	1,026,384	-	-	-	-	-	-
23	408 Taxes Other than Income	105,232	-	-	-	-	-	-
24	408 Property Taxes	156,279	-	-	-	-	-	-
25	409 Income Tax	-	-	-	-	-	-	-
26	Total Operating Expenses	\$ 3,523,161	\$ 15,678	\$ -	\$ (72,685)	\$ 160,577	\$ (29,146)	\$ (17,961)
27	Operating Income (Loss)	\$ 526	\$ 78,755	\$ 23,358	\$ 72,685	\$ (160,577)	\$ 29,146	\$ 17,961

SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[H] Mis. Expense ADJ #7	[I] Depr. Exp. ADJ #8	[J] Prop. Tax ADJ #9	[K] STAFF ADJUSTED	[L] STAFF RECOMMENDED CHANGES	[M] STAFF RECOMMENDED
1	REVENUES:						
2	461 Metered Water Sales	\$ -	\$ -	\$ -	\$ 3,545,287	\$ 257,877	\$ 3,803,164
3	460 Water Sales - Unmetered	-	-	-	-	-	-
4	474 Other Operating Revenue	-	-	-	-	-	96,191
5	Total Operating Revenues	\$ -	\$ -	\$ -	\$ 3,641,478	\$ 257,877	\$ 3,899,354
6	OPERATING EXPENSES:						
7	601 Salaries & Wages	\$ -	\$ -	\$ -	\$ 927,005	\$ -	\$ 927,005
8	604 Employee Pensions and Benefits	-	-	-	160,577	-	160,577
9	610 Purchased Water	-	-	-	-	-	-
10	615 Purchased Power	-	-	-	234,355	-	234,355
11	618 Chemicals	-	-	-	35,809	-	35,809
12	620 Repairs & Maintenance	-	-	-	36,762	-	36,762
13	621 Office Supplies & Expense	-	-	-	16,621	-	16,621
14	630 Outside services	-	-	-	277,357	-	277,357
15	635 Water Testing	-	-	-	15,124	-	15,124
16	641 Rents	-	-	-	-	-	-
17	650 Transportation Expense	-	-	-	54,195	-	54,195
18	657 Insurance - General Liability	-	-	-	54,967	-	54,967
19	659 Insurance - Health & Life	-	-	-	212,765	-	212,765
20	666 Regulatory Commission Expense	-	-	-	30,000	-	30,000
21	675 Miscellaneous Expense	(130,121)	-	-	106,071	-	106,071
22	403 Depreciation Expense	-	(202,499)	-	823,885	-	823,885
23	408 Taxes Other than Income	-	-	-	105,232	-	105,232
24	408.1 Property Taxes	-	-	5,239	161,518	3,823	165,340
25	409 Income Tax	-	-	-	-	-	-
26	Total Operating Expenses	\$ (130,121)	\$ (202,499)	\$ 5,239	\$ 3,252,242	\$ 3,823	\$ 3,256,065
27	Operating Income (Loss)	\$ 130,121	\$ 202,499	\$ (5,239)	\$ 389,235	\$ 254,054	\$ 643,289

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Schedule PNT-7

OPERATING INCOME ADJUSTMENT NO. 1 - WATER USAGE NORMALIZATION

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Meter Water Revenue	\$ 3,450,854	\$ 94,433	\$ 3,545,287
2	Purchased Power Expense	\$ 220,756	\$ 13,599	\$ 234,355
3	Chemicals	\$ 33,730	\$ 2,079	\$ 35,809

References:

Column (A), Cooperative Schedule C-2

Column (B): Testimony

Column (C): Column (A) + Column (B)

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Schedule PNT-8

OPERATING INCOME ADJUSTMENT NO. 2 - OTHER REVENUES

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Other Water Revenue	72,833	23,358	96,191

References:

Column (A), Cooperative Schedule C-2
Column (B): Testimony
Column (C): Column (A) + Column (B)

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Schedule PNT-9

OPERATING INCOME ADJUSTMENT NO. 3 - SALARIES AND WAGES

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Salaries and Wages	\$ 999,690	\$ (72,685)	\$ 927,005
2	2015 Total Compensation		\$ 1,087,895	
3	Amounts Capitalized and Charged to other accounts		(148,850)	
4	Cost of Accountant included in Outside Service		(12,040)	
5	Adjusted salaries and wages charged to O & M		\$ 927,005	

References:

Column (A), Cooperative Schedule C-2
Column (B): Testimony
Column (C): Column (A) + Column (B)

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Schedule PNT-10

OPERATING INCOME ADJUSTMENT NO. 4 - EMPLOYEE PENSIONS AND BENEFITS

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Reclassification from Miscellaneous Expense	\$ -	\$ 124,576	\$ 124,576
2	Retirement Adjustment		36,001	36,001
			<u>\$ 160,577</u>	

References:

Column (A), Cooperative Schedule C-2

Column (B): Testimony

Column (C): Column (A) + Column (B)

OPERATING INCOME ADJUSTMENT NO. 5 - REPAIR AND MAINTENANCE EXPENSE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Reservoir Maintenance Annual Reserve	\$ 55,886	\$ (29,146)	\$ 26,740

Reservoir Maintenance Annual Reserve calculation

	[A]	[B]	[C]	[D]	[E]	[F]	[G]
		Estimated		Distribution	Total needed		Annual cost
		Cost	GL Balance	from	[B]-[C]-[D]	Frequency	[E]/[F]
				Reservoir 2			
2	Reservoir 1	\$75,000	\$ (62,870)	\$34,000	\$103,870	10 years	\$10,387
3	Reservoir 3	107,600	48,516		59,084	20 years	2,954
4	Reservoir 4	196,350	64,368	31,000	100,982	20 years	5,049
5	Tank 10	67,830	5,685	21,492	40,653	10 years	4,065
6	Tank 11	53,100	10,260		42,840	10 years	4,284
7	Reservoir 2 (removed)		86,492				
8	Total			\$86,492			\$26,740

References:

Column (A), Cooperative Schedule C-2
Column (B): Testimony
Column (C): Column (A) + Column (B)

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Schedule PNT-12

OPERATING INCOME ADJUSTMENT NO. 6 - OUTSIDE SERVICE

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Legal Consulting	\$ 18,345	\$ (10,911)	\$ 7,434
2	HR-Assistant to President	7,050.1	(7,050.1)	-
			<u>\$ (17,961)</u>	

References:

Column (A), Cooperative Schedule C-2

Column (B): Testimony

Column (C): Column (A) + Column (B)

Community Water Company of Green Valley

Schedule PNT-13

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OPERATING INCOME ADJUSTMENT NO. 7- MISCELLANEOUS EXPENSES

LINE NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Food & Entertainment	\$ 5,545	\$ (5,545)	\$ -
2	Profit Sharing	87,871	(87,871)	-
3	401(K) Matching	36,705	(36,705)	-
4	Total		<u>\$ (130,121)</u>	

References:

Column (A), Cooperative Schedule C-2

Column (B): Testimony

Column (C): Column (A) + Column (B)

OPERATING INCOME ADJUSTMENT No. 8 - DEPRECIATION EXPENSE

Line No.	ACCT NO.	DESCRIPTION	GROSS UTILITY PLANT IN SERVICE	FULLY/NON DEPRECIABLE	DEPRECIABLE PLANT	DEPREC. RATE	EXPENSE
		<i>Plant In Service</i>					
1	301	Organization Costs	\$ 47,863	\$ 47,863	\$ -	0.00%	\$ -
2	302	Franchise Costs	244	244	-	0.00%	-
3	303	Land & Land Rights	170,589	170,589	-	0.00%	-
4	304	Structures & Improvements-Pumping	30,695		30,695	3.33%	1,022
5	304.1	Structures & Improvements-Water Treatme	141,261		141,261	3.33%	4,704
6	307	Wells & Springs	2,013,049		2,013,049	3.33%	67,035
7	311	Electric Pumping Equipment	3,289,327	1,163,886	2,125,441	12.50%	265,680
8	311.1	Pumping Equipment-Gas	118,494	118,494	-	12.50%	-
9	320	Water Treatment Equipment	4,440,527		4,440,527	3.33%	147,870
10	320.1	Water Treatment Plants	-		-	3.33%	-
11	320.2	Solutions & Feeders	-		-	20.00%	-
13	330	Distribution Reservoirs & Standpipes	946,545		946,545	2.22%	21,013
14	330.1	Storage Tank	-		-	2.22%	-
15	330.2	Pressure Tanks	-		-	5.00%	-
16	331	Transmission & Distribution Mains	19,123,697		19,123,697	2.00%	382,474
17	333	Services	4,696,522		4,696,522	3.33%	156,394
18	333	Fire Taps	332,174		332,174	3.33%	11,061
19	334	Meters & Meter Installations	1,600,133		1,600,133	8.33%	133,291
20	335	Hydrants	2,031,665		2,031,665	2.00%	40,633
21	336	Backflow Prevention Devices	-		-	6.67%	-
22	339	Other Plant & Misc. Equip.	583,181	-	583,181	6.67%	38,898
23	340	Office Furniture & Fixtures	151,618		151,618	6.67%	10,113
24	340.1	Computer & Software	608,761	105,743	503,018	20.00%	100,604
25	341	Transportation Equipment	469,777	300,372	169,405	20.00%	33,881
26	342	Store Equipment	2,441		2,441	4.00%	98
27	343	Tools & Work Equipment	103,018		103,018	5.00%	5,151
28	344	Laboratory Equipment	12,000		12,000	10.00%	1,200
29	345	Power Operated Equipment	136,512		136,512	5.00%	6,826
30	345.1	Power Operated Equipment-Backhoe	149,439	107,179	42,260	5.00%	2,113
31	346	Communications Equipment	124,656	50,299	74,357	10.00%	7,436
32	347	Miscellaneous Equipment	-		-	10.00%	-
33	348	Other Tangible Plant	12,938		12,938	10.00%	1,294
34		Subtotal General	<u>\$ 41,337,126</u>	<u>\$ 2,064,669</u>	<u>\$ 39,272,457</u>		<u>\$ 1,438,790</u>
		Composite rate					3.66%
35		Contributions in Aid of Construction (CIAC)					\$ 16,784,118
36		Amortization of Contributions					\$ 614,905
37		Staff Recommended Depreciation Expense					\$ 823,885
38		Cooperative Proposed Depreciation Expense					1,026,384
39		Increase/(Decrease) to Depreciation Expense					<u>\$ (202,499)</u>

Community Water Company of Green Valley
Docket No. W-02304A-15-0263
Test Year ended December 31, 2014

Schedule PNT-15

OPERATING INCOME ADJUSTMENT No. 9- PROPERTY TAXES

LINE NO.	DESCRIPTION	[A]	[B]
		STAFF AS ADJUSTED	STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues	\$ 3,641,478	\$ 3,641,478
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	\$ 7,282,955	\$ 7,282,955
4	Staff Recommended Revenue	3,641,478	3,899,354
5	Subtotal (Line 4 + Line 5)	\$ 10,924,433	\$ 11,182,309
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	\$ 3,641,478	\$ 3,727,436
8	Department of Revenue Multiplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	\$ 7,282,955	\$ 7,454,873
10	Plus: 10% of CWIP	-	-
11	Less: Net Book Value of Licensed Vehicles	19,442	19,442
12	Full Cash Value (Line 9 + Line 10 - Line 11)	\$ 7,263,513	\$ 7,435,431
13	Assessment Ratio	18.00%	18.00%
14	Assessment Value (Line 12 * Line 13)	\$ 1,307,432	\$ 1,338,378
15	Composite Property Tax Rate - Obtained from ADOR	12.35380%	12.35380%
16	Staff Test Year Adjusted Property Tax Expense (Line 14 * Line 15)	\$ 161,518	
17	Company Proposed Property Tax	156,279	
18	Staff Test Year Adjustment (Line 16 - Line 17)	\$ 5,239	
19	Property Tax - Staff Recommended Revenue (Line 14 * Line 15)		\$ 165,340
20	Staff Test Year Adjusted Property Tax Expense (Line 16)		161,518
21	Increase in Property Tax Due to Increase in Revenue Requirement		\$ 3,823
22	Increase in Property Tax Due to Increase in Revenue Requirement (Line 21)		\$ 3,823
23	Increase in Revenue Requirement		\$ 257,877
24	Increase in Property Tax Per Dollar Increase in Revenue (Line 22 / Line 23)		1.482456%

REFERENCES:

Line 15: Composite Tax Rate obtained from Arizona Department of Revenue
Line 17: Cooperative Schedule C-1 Page 2
Line 21: Line 19 - Line 20
Line 23: Schedule PNT-4

Cash Flow Analysis

Line No.		[A] <i>Cooperative Proposed</i>	[B] <i>Staff Recommended</i>
1	Operating Revenue:	\$ 4,231,930	\$ 3,899,354
2	Operating Expenses:		
3	Operation and Maintenance	2,235,266	2,161,608
4	Depreciation	1,026,384	823,885
5	Property & Other Taxes	272,010	270,572
6	Income Tax	-	-
7	Total Operating Expense	\$ 3,533,660	\$ 3,256,065
8			
9	Operating Income	\$ 698,270	\$ 643,289
10			
11	Annual Debt Payment	\$ 272,756	\$ 272,756
12			
13	Cash Flow : (L9+L4-L11)	\$ 1,451,898	\$ 1,194,418

References:

Column (A), Cooperative Schedule C-1
Column (B): Schedule PNT-4

BEFORE THE ARIZONA CORPORATION COMMISSION

DOUG LITTLE
Interim Chairman
BOB STUMP
Commissioner
BOB BURNS
Commissioner
TOM FORESE
Commissioner

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. W-02304A-15-0263
COMMUNITY WATER COMPANY OF GREEN)
VALLEY, AN ARIZONA CORPORATION, FOR A)
DETERMINATION OF THE CURRENT FAIR)
VALUE OF ITS UTILITY PLANT AND)
PROPERTY AND FOR RATE INCREASES IN ITS)
RATES AND CHARGES FOR UTILITY SERVICE)
BASED THEREON)

DIRECT
TESTIMONY
OF
JIAN W. LIU
UTILITIES ENGINEER
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

FEBRUARY 2, 2016

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EXECUTIVE SUMMARY
COMMUNITY WATER COMPANY OF GREEN VALLEY
DOCKET NO. W-02304A-15-0263

CONCLUSIONS

1. The Arizona Department of Environmental Quality ("ADEQ") reported that the Community Water Company of Green Valley ("Community Water" or "Company") Public Water System ("PWS") No. 10-004, is currently delivering water that meets water quality standards required by 40 C.F.R. 141 (National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4. (ADEQ compliance status report dated July 16, 2015).
2. The Company is located in the Tucson Active Management Area ("AMA") and is subject to Arizona Department of Water Resources ("ADWR") AMA reporting and conservation requirements. ADWR reported that Community Water is currently in compliance with departmental requirements governing water providers and/or community water systems. (ADWR email dated November 2, 2015).
3. A check with the Arizona Corporation Commission ("ACC" or "Commission") Utilities Division Compliance Section showed no delinquent compliance items for the Company. (ACC Compliance Section Email dated October 28, 2015).
4. Community Water will have little or no growth in the future since there are only approximately 500 lots available within its Certificate of Convenience and Necessity ("CC&N") area based on information provided by the Company.
5. Community Water reported 771,424,000 gallons pumped and 730,051,000 gallons sold, resulting in a water loss of approximately 5.36 percent in 2014.
6. Community Water has approved Curtailment Plan and Backflow Prevention Tariffs on file with the Commission.
7. The Company has approved BMP tariffs on file with the Commission.
8. Community Water's existing water system (as of December 2014) can adequately support approximately 44,000 additional connections based on storage capacity and can adequately support approximately 28,000 additional connections based on well production.

RECOMMENDATIONS

1. Staff recommends its average annual cost of \$15,124 be adopted for the water testing expense in this proceeding.
2. In the prior rate case, the Company adopted Staff's typical and customary water depreciation rates. These rates are presented in Table I-1 and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.

3. The Company did not propose any changes to its service line and meter installation charges. Therefore, Staff recommends that the current authorized rates for a meter and service line continue to apply. These charges are listed in Table M-1.
4. Staff finds the Reservoir No. 5 with 2,000,000 gallons of storage capacity as excess capacity.

INTRODUCTION

Q. Please state your name, place of employment and job title.

A. My name is Jian W. Liu. My place of employment is the Arizona Corporation Commission ("ACC" or "Commission"), Utilities Division, 1200 West Washington Street, Phoenix, Arizona 85007. My job title is Water/Wastewater Engineer.

Q. How long have you been employed by the Commission?

A. I have been employed by the Commission since October 2005.

Q. Please list your duties and responsibilities.

A. My main responsibilities are to inspect, investigate and evaluate water and wastewater systems. This includes obtaining data, preparing reconstruction cost new and/or original cost studies, investigative reports, interpreting rules and regulations, and to suggest corrective action and provide technical recommendations on water and wastewater system deficiencies. I also provide written and oral testimony in rate cases and other cases before the Commission.

Q. How many companies have you analyzed for the Utilities Division?

A. I have analyzed approximately 50 companies covering various responsibilities for the Utilities Division.

Q. Have you previously testified before this Commission?

A. Yes, I have testified before this Commission.

1 **Q. What is your educational background?**

2 A. I am a Ph.D. Candidate in Geotechnical Engineering from Arizona State University ("ASU").
3 I have a Master of Science Degree in Natural Science from ASU and a Master of Science
4 Degree in Civil Engineering from Institute of Rock & Soil Mechanics ("IRSM"), Academy of
5 Sciences, China.
6

7 **Q. Briefly describe your pertinent work experience.**

8 A. From 1982 to 2000, I was employed by IRSM, SCS Engineers, and URS Corporation as a
9 Civil and Environmental Engineer. In 2000, I joined the Arizona Department of
10 Environmental Quality ("ADEQ"). My responsibilities with ADEQ included review and
11 approval of water distribution systems, sewer distribution systems, and on-site wastewater
12 treatment facilities. I remained with ADEQ until transferring to the Commission in October
13 2005.
14

15 **Q. Please state your professional membership, registrations, and licenses.**

16 A. I am a licensed professional civil engineer in the State of Arizona.
17

18 **PURPOSE OF TESTIMONY**

19 **Q. What was your assignment in this rate proceeding?**

20 A. My assignment was to provide Staff's engineering evaluation of the subject rate proceeding. I
21 reviewed the Company's application and responses to data requests, and I inspected the water
22 system. This testimony and its attachments present Staff's engineering evaluation. The
23 findings of my engineering evaluation are contained in the Engineering Report that I have
24 prepared for this proceeding. The report is included as Exhibit JWL in this pre-filed
25 testimony.
26

ENGINEERING REPORT

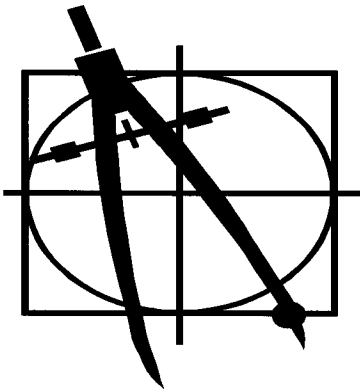
Q. Please describe the attached Engineering Report, Exhibit JWL.

A. Exhibit JWL presents the details and analyses of Staff's findings, and is attached to this direct testimony. Exhibit JWL contains the following major topics: A) Location of Company; B) Description of the Water System; C) ADEQ Compliance; D) ACC Compliance; E) Arizona Department Of Water Resources ("ADWR") compliance; F) Water Testing Expenses, G) Water Usage, H) Growth; I) Depreciation Rates; J) Other Issues.

Staff's conclusions and recommendations from the engineering report are contained in the "Executive Summary", above.

Q. Does this conclude your direct testimony?

A. Yes, it does.



**Engineering Report for:
Community Water of Green Valley
Docket No. W-02304A-15-0263
(Rates)**

**By: Jian W Liu
Utilities Engineer**

December 9, 2015

EXECUTIVE SUMMARY

CONCLUSIONS:

CONCLUSIONS

1. The Arizona Department of Environmental Quality ("ADEQ") reported that the Community Water Company of Green Valley ("Community Water" or "Company") Public Water System ("PWS") No. 10-004, is currently delivering water that meets water quality standards required by 40 C.F.R. 141 (National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4. (ADEQ compliance status report dated July 16, 2015).
2. The Company is located in the Tucson Active Management Area ("AMA") and is subject to Arizona Department of Water Resources ("ADWR") AMA reporting and conservation requirements. ADWR reported that Community Water is currently in compliance with departmental requirements governing water providers and/or community water systems. (ADWR email dated November 2, 2015).
3. A check with the Arizona Corporation Commission ("ACC" or "Commission") Utilities Division Compliance Section showed no delinquent compliance items for the Company. (ACC Compliance Section Email dated October 28, 2015).
4. Community Water will have little or no growth in the future since there are only approximately 500 lots available within its Certificate of Convenience and Necessity ("CC&N") area based on information provided by the Company.
5. Community Water reported 771,424,000 gallons pumped and 730,051,000 gallons sold, resulting in a water loss of approximately 5.36 percent in 2014.
6. Community Water has approved Curtailment Plan and Backflow Prevention Tariffs on file with the Commission.
7. The Company has approved BMP tariffs on file with the Commission.

8. Community Water's existing water system (as of December 2014) can adequately support approximately 44,000 additional connections based on storage capacity and can adequately support approximately 28,000 additional connections based on well production.

RECOMMENDATIONS

1. Staff recommends its average annual cost of \$15,124 be adopted for the water testing expense in this proceeding.
2. In the prior rate case, the Company adopted Staff's typical and customary water depreciation rates. These rates are presented in Table I-1 and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.
3. The Company did not propose any changes to its service line and meter installation charges. Therefore, Staff recommends that the current authorized rates for a meter and service line continue to apply. These charges are listed in Table M-1.
4. Staff considered the Reservoir No. 5 with 2,000,000 gallons of storage capacity as excess capacity.

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A. INTRODUCTION AND LOCATION OF COMPANY

On July 15, 2015 Community Water Company of Green Valley ("Community Water" or "Company") filed an application with the Arizona Corporation Commission ("ACC" or "Commission") for approval of a rate increase in Docket No. W-02304A-15-0263. Community Water is located approximately 25 miles south of Tucson on Interstate Highway 19 and serves portions of Pima County. The Company's existing Certificate of Convenience and Necessity includes an area totaling approximately 6,000 acres or 9.4 square miles. Figure A-1 shows the location of Community Water within Pima County and Figure A-2 shows the certificated area. The Commission Utilities Division Staff ("Staff") engineering review and analysis of the pending application are presented in this report.

B. DESCRIPTION OF WATER SYSTEM

The water system was field inspected on November 4, 2015, by Jian W Liu, Staff Utilities Engineer, and Phan Tsan, Public Utilities Analyst in the accompaniment of John Meyer and Pierre Han hart, representing Community Water.

The operation of the water system consists of four wells, six storage tanks, three booster stations and a distribution system, serving approximately 12,939 connections as of December 2014. Wells 6 and 9 are located in the middle part of the service area, and wells 10 and 11 are located in the southern and northern part of the service area. Freeport MacMoRan (formerly Phelps Dodge) has paid for all of the capital costs associated with constructing of wells 10 and 11. The detailed plant facility descriptions are as follows:

Table 1. Arsenic Treatment Plant

Name or Description	Plant Items	Location
1200 GPM Arsenic Treatment Plant	Settling Tank, Sludge Container, 550 gallon Sodium Hypochlorite tank, Static Mixer, 550 gallon Ferric Chloride tank, Media Trap/Strainer, sludge drying bed, 8 Arsenic filter tanks	Well #9 1526 N La Canoa Dr
1000 GPM Arsenic Treatment Plant	Settling Tank, Sludge Container, 550 gallon Sodium Hypochlorite tank, Static Mixer, 550 gallon Ferric Chloride tank, 8 Arsenic filter tanks	Well #6 304 S Abrego Drive
2500 GPM Arsenic Treatment Plant	Settling Tank, Sludge Container, 6-Arsenic filter tanks, 1,100 gallon double-walled chlorine tank, Static Mixer, 550 gallon double-walled Ferric Chloride tank, and dewatering pump/control panel, sludge drying bed	Well #10 1667 S Abrego Drive
2500 GPM Arsenic Treatment Plant	Settling Tank, Sludge Container, 6-Arsenic filter tanks, 1,100 gallon double-walled chlorine tank, Static Mixer, 550 gallon double-walled Ferric Chloride tank, and dewatering pump/control panel, sludge drying bed	Well #11 18460 S. Calle Valle Verde

Table 2. Well Data

Well Name Or #	ADWR ID No.	Pump HP	Pump GPM	Casing Size & Depth	Meter Size
#6	55-627485	250	650	16" and 837'	1-6"&1-10"
#9	55-588121	250	1,000	20" and 1000'	1-3"&1-12"
#10	55-207982	400	2,100	20" and 1140'	1-12"
#11	55-608518	350	2,400	24" and 2786'	1-12"
Totals:			6,150		

Note: GPM = gallons per minute.

Table 3. Storage Tanks

Capacity Million Gallons (MG)	Quantity (Each)	Location
2.0 (Reservoir #5)	1	2051 W Continental Road
1.0 (Reservoir #3)	1	1901 W. Duval Road
2.0 (Reservoir #4)	1	1901 W. Duval Road
1.0 (Reservoir #1)	1	640 W Bondadosa
0.30 (Well #10 Forebay)	1	Well #10
0.30 (Well #11 Forebay)	1	Well #11
Totals: 6.6 MG	6	

Table 4. Booster Systems

Location	Plant Facilities
640 W Bondadosa (Reservoir No. 1)	40 Hp booster pump
Well #10	Five 100Hp
Well #11	Five 125Hp

Table 5. Water Mains

Diameter	Material	Length
2-inch	Copper & PVC	7,050 ft
3-inch	AC & PVC	8,167 ft
4-inch	AC & DI	53152 ft.
6-inch	AC & DI	314312 ft.
8-inch	AC & DI	241677 ft.
10-inch	AC & DI	6,799 ft.
12-inch	AC & DI	111119 ft.
16-inch	AC & DI	45,450 ft.

Table 6. Customer Meters

Size	Quantity
5/8 x 3/4-inch	10110
3/4-inch	96
1- inch	512
1-1/2-inch	78
2-inch	163
Turbo 3	15
Turbo 4	1
Turbo 6	

Table 7. Fire Hydrants

Size	Quantity
Standard	1013

C. WATER USE

Water Sold

Based on the information provided by Community Water, water use for the year 2014 is presented in Figure C-1. Customer consumption experienced a high monthly average water use of 176 gallons per day (“GPD”) per connection and a low monthly average water use of 137 GPD per connection for an average annual use of 155 GPD per connection.

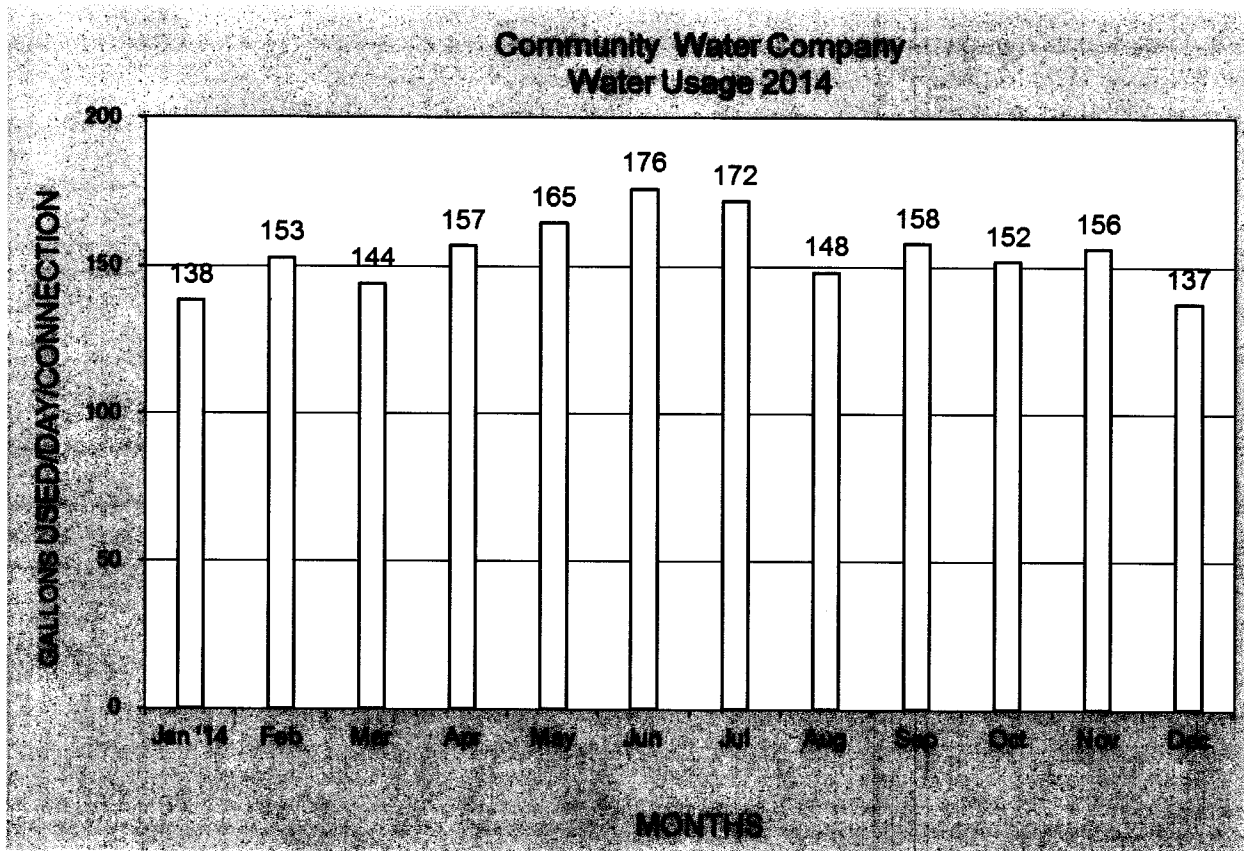


Figure C-1. Water Use

Non-Account Water

Non-account water should be 10 percent or less. Community Water reported 771,424,000 gallons pumped and 730,051,000 gallons sold, resulting in a water loss of approximately 5.36 percent in 2014.

D. GROWTH

Community Water had 12,676 customers in 2009. In test year 2014, Community Water had 12,939 customers. The Company added 263 connections during the 5 year period (from 2009 to 2014). Community Water will have little or no growth in the future since there is only approximately 500 lots available within its Certificate of Convenience and Necessity ("CC&N") area based on information provided by the Company.

E. WATER SYSTEM ANALYSIS

The existing water system consists of four wells capable of producing approximately 6,150 gallons per minute ("GPM") of total capacity, and a total storage tank capacity of 4,600,000 gallons in December 2014. Based on 2014 water use data, Community Water's existing water system (as of December 2014) can adequately support approximately 44,000 additional connections based on storage capacity, and can adequately support approximately 28,000 additional connections based on well production.

Figure E-1 depicts the Customer Consumption Projection using linear regression analysis. Community Water's customers used 20.1 percent less water in 2014 compared with their water Consumption in 2007.

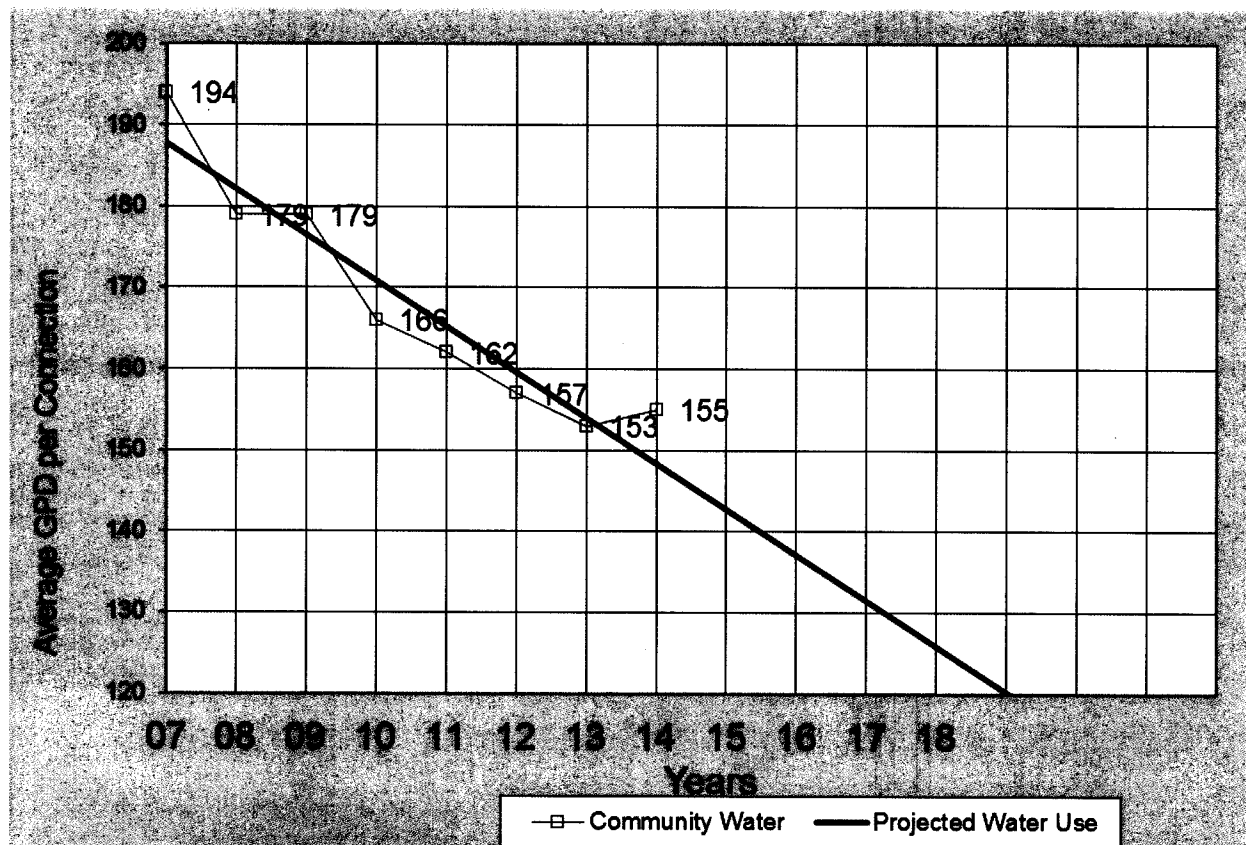


Figure E-1. Customer Consumption Projection

F. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY COMPLIANCE ("ADEQ")*Compliance*

ADEQ reported that the Community Water's drinking water system, Public Water System ("PWS") No. 10-004, is currently delivering water that meets water quality standards required by 40 C.F.R. 141 (National Primary Drinking Water Regulations) and Arizona Administrative Code ("A.A.C."), Title 18, Chapter (ADEQ compliance status report dated July 16, 2015).

Water Testing Expense

Since Community Water serves more than 10,000 customers, the Company does not participate in the Monitoring Assistance Program. The Company reported its total water testing expense was \$15,124 during the test year 2014. Staff has reviewed this reported amount, invoices and all supporting documents. Staff recommends an average annual cost of \$15,124 be adopted for this proceeding.

G. ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR") COMPLIANCE

Community Water's service area is located in the ADWR Tucson Active Management Area ("AMA") and is subject to ADWR AMA reporting and conservation requirements. ADWR reported that Company is currently in compliance with departmental requirements governing water providers and/or community water systems. (ADWR email dated November 2, 2015).

H. ACC COMPLIANCE

A check with the ACC Utilities Division Compliance Section showed no delinquent compliance items for the Company. (Compliance Section email dated October 28, 2015).

I. DEPRECIATION RATES

In the prior rate case, the Company adopted Staff's typical and customary water depreciation rates. These rates are presented in Table I-1 and it is recommended that the Company continue to use these depreciation rates by individual National Association of Regulatory Utility Commissioners ("NARUC") category.

Table I-1. Depreciation Rates

NARUC Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	8	12.5
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	5	20.00
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00
344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00
348	Other Tangible Plant	10	10.00

J. CURTAILMENT PLAN TARIFF

The Company has an approved curtailment tariff on file with the Commission.

K. BACKFLOW PREVENTION TARIFF

The Company has an approved backflow prevention tariff on file with the Commission.

L. BEST MANAGEMENT PRACTICES

The Company has approved BMP tariffs on file with the Commission.

M. SERVICE LINE AND METER INSTALLATION CHARGES

The Company did not propose any changes to its service line and meter installation charges. Therefore, Staff recommends that the current authorized rates for a meter and service line continue to apply, these charges are listed below in Table M-1.

Table M-1. Service Line and Meter Installation Charges

Meter Size	Current & Proposed Service Line Charges	Current & Proposed *Meter Charges	Total Current & Proposed Charges
5/8 x3/4-inch	\$445	\$155	\$600
3/4-inch	\$445	\$255	\$700
1-inch	\$495	\$315	\$810
1-1/2-inch	\$550	\$525	\$1075
2-inch Turbine	\$830	\$1045	\$1,875
2-inch Compound	\$830	\$1,890	\$2,720
3-inch Turbine	\$1045	\$1,670	\$2,715
3-inch Compound	\$1165	\$2,545	\$3,710
4-inch Turbine	\$1,490	\$1737	\$3,227
4-inch Compound	\$1,670	\$3,645	\$5,315
6-inch Turbine	\$2,210	\$3,766	\$5,976
6-inch Compound	\$2,330	\$6,920	\$9,250
8-inch & Larger	At Cost	At Cost	At Cost

*Note: Meter charge includes meter box or vault.

N. POST-TEST YEAR PLANT ADDITION

Community Water removed Reservoir No. 2 (1,000,000 gallons) from service on December 8, 2014. The Company constructed Reservoir No. 5 (2,000,000 gallons) in 2015 to replace Reservoir No. 2.

Staff has inspected and verified the completion and in-service status of the post-test year plant addition - Reservoir No. 5. The Company told Staff that Reservoir No. 5 has been in-service since September 18, 2015.

The Company water system had adequate storage capacity without Reservoir No. 5 during the peak month of 2015. In fact, Community Water used only 75 percent of its storage capacity, without Reservoir No. 5, during the summer of 2015 according to information provided by the Company.

As explained in the Water System Analysis Section above, Community Water's water system can adequately support approximately 44,000 additional connections based on storage capacity without Reservoir No. 5. "The Company's service area is near full capacity, and the Company has estimated that growth is limited to less than 500 customers¹". Furthermore, the Company states that "the total water consumption has decreased" and "The downward trends in per-household demand are expected to continue through 2020 and into the next decade."²

Arizona Department of Environmental Quality ("ADEQ") storage requirements, pursuant to Arizona Administrative Code ("A.A.C.") R18-5-503, are as follows:

- A. The minimum storage capacity for CWS³ or a non-community water system that serves a residential population or a school shall be equal to the average daily demand during the peak month of the year. Storage capacity may be based on existing consumption and phased as the water system expands.
- B. The minimum storage capacity for a multiple-well system for a CWS or a non-community water system that serves a residential population or a school may be reduced by the amount of the total daily production capacity minus the production from the largest producing well.

Based on Community Water 2014 Water use data, the Company's existing water system consists of four wells capable of producing approximately 8,856,000 gallons per day. The largest producing well can produce 3,456,000 gallons per day. The amount of the total daily production capacity (8,856,000 gallons) minus the production from the largest producing well (3,456,000 gallons) equals 5,400,000 gallons. This 5,400,000 gallons can be used as storage capacity per ADEQ.

Therefore, Community Water had a total storage than capacity of 4,600,000 gallons in December 2014, plus daily production capacity of 5,400,000 gallons can be used as storage capacity.

¹ Page 2 of the Direct Testimony of Arturo Gabaldon

² Page 11 of the Direct Testimony of Arturo Gabaldon

³ Community Water System

That is a total storage capacity of 10,000,000 gallons available for the Company (not including Reservoir No. 5 (2,000,000 gallons)).

Furthermore, The Company's target of 48 hours of average day demand being available in storage to meet emergency requirements is not reasonable because "The Company has never has a customer without access to water for more than 12 hours⁴." If Community Water's statement is true, that is no customer without access to water for more than 12 hours during the last 40 years.

In determining excess capacity⁵, Staff uses the data from the peak month of the year as the requirement and 5 years as a reasonable planning period. Since Reservoir No. 5 with 2,000,000 gallons of storage capacity is not needed now and not needed in the foreseeable future.

Staff finds the Reservoir No. 5 with 2,000,000 gallons of storage capacity as excess capacity.

⁴ Page 3 of the Direct Testimony of Arturo Gabaldon

⁵ Excess Capacity means constructed plant facilities that exceed the system requirements within a reasonable planning period.

P I M A C O U N T Y

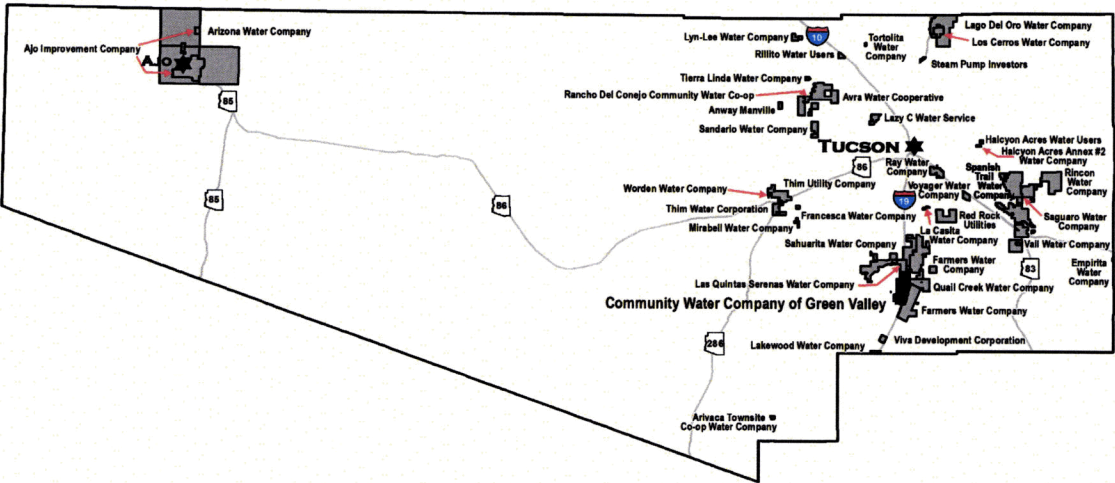


Figure A-1. Pima County Map

P I M A C O U N T Y

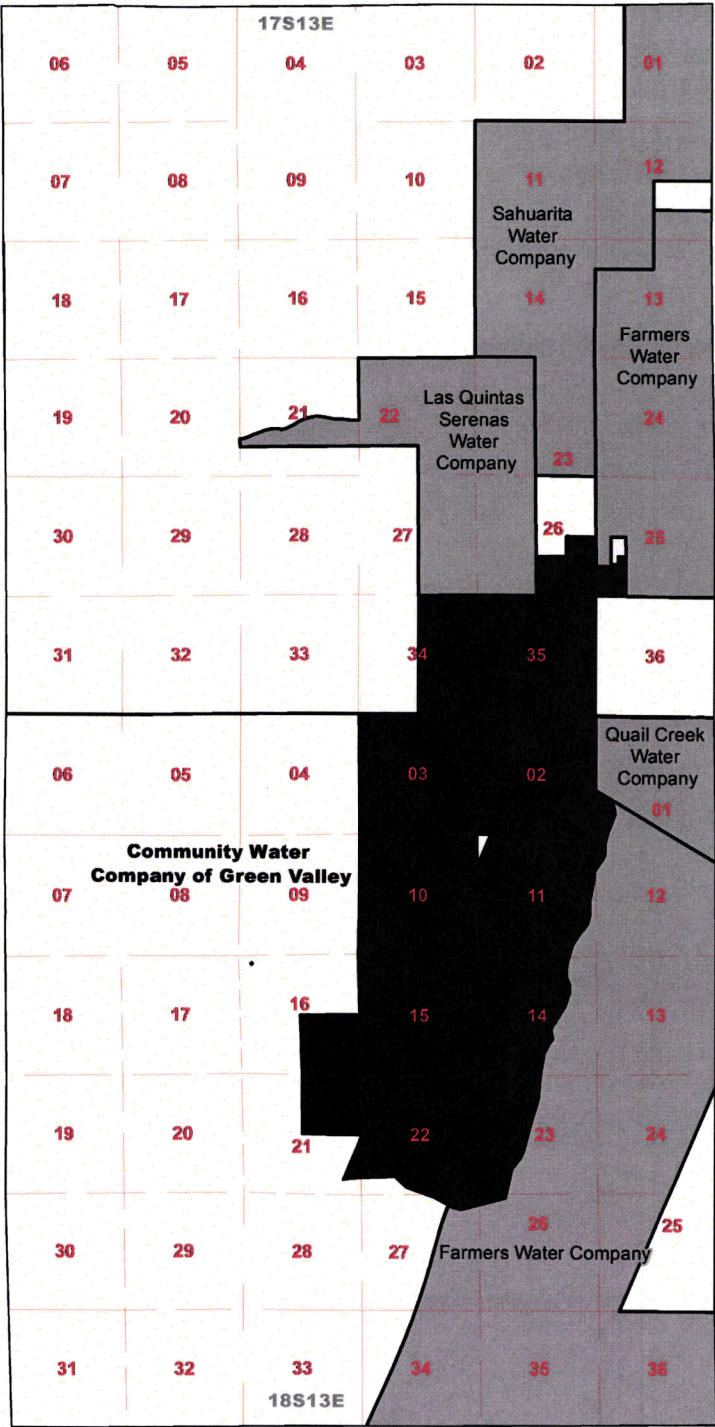


Figure A-2. Certificated Area